

U.S. Application No. 10/796,301
Docket No. K06-167785M/TBS
(NGB.376)

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REMARKS

Claims 1-5, 10-12 and 14 are all of the claims presently pending in the application.

Claims 1, 10, 12 and 14 have been amended to more particularly define the claimed invention. Claims 6-9, 13 and 15 have been canceled without prejudice or disclaimer.

Entry of this Amendment is believed proper since no new issues are being presented to the Examiner that would require further consideration and/or search.

Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 14 and 15 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1-10 and 12-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Okaniwa et al. (U.S. Patent No. 6,444,621; hereinafter "Okaniwa"), in view of Oka et al. (U.S. Patent No. 6,782,771; hereinafter "Oka") and further in view of Alexander (U.S. Patent No. 4,822,505). Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Okaniwa in view of Oka and Alexander, and further in view of Hasegawa et al. (U.S. Patent No. 5,550,190; hereinafter "Hasegawa").

These rejections are respectfully traversed below.

I. THE CLAIMED INVENTION

The claimed invention of exemplary claim 1 provides an electric power steering device including a grease including a base oil having a kinetic viscosity of 1000 to 5000 mm²/s (40°C), a worked penetration of the grease being not more than 300, and which is

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charged in a gap between the spline shaft and the cylindrical body, wherein the electric power steering device is devoid of an O-ring between the spline shaft and the cylindrical body (c.g., see Application at page 3, line 20 through page 4, line 5). This combination of features is important for providing an electric power steering device where the O-ring is omitted, so that the productivity can be enhanced, while maintaining an excellent high temperature working property and preventing gear noise (see Application at page 3, lines 11-18).

II. THE WRITTEN DESCRIPTION REJECTION

The Examiner alleges that claims 14 and 15 fail to comply with the written description requirement. Specifically, the Examiner alleges that the Specification does not provide support for “a grease having a worked penetration of which is not more than 200”.

Applicants have amended claim 14, as provided above, to recite, inter alia, “*a grease having a worked penetration of which is not more than 300*”. This feature of the claimed invention is clearly supported in the original disclosure of the Application.

Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. THE PRIOR ART REFERECES

Applicants incorporate herein the traversal arguments included in Applicants' Amendment filed on July 25, 2006.

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A. Claims 1-10 and 12-15

The Examiner alleges that Okaniwa would have been combined with Oka and Alexander to teach the claimed invention of claims 1-10 and 12-15. Applicants submit, however, that these references, even if combined, would not teach or suggest each and every feature of the claimed invention.

That is, neither Okaniwa nor Oka nor Alexander, nor any combination thereof, teaches or suggests an electric power steering device including “a grease including a base oil having a kinetic viscosity of 1000 to 5000 mm²/s (40 °C), a worked penetration of said grease being not more than 300, and which is charged in a gap between said spline shaft and said cylindrical body, wherein the electric power steering device is devoid of an O-ring between said spline shaft and said cylindrical body” (emphasis added), as recited in claim 1, and similarly recited in claims 12 and 14.

The Examiner concedes that Okaniwa “does not disclose details of the steering system” (see Office Action dated October 19, 2006 at page 3).

The Examiner alleges that Oka teaches “a well-known system”. The Examiner attempts to rely on Figure 1 of Oka to support his allegations. The Examiner, however, is clearly incorrect.

Indeed, nowhere in this Figure (nor anywhere else for that matter) does Oka teach or suggest an electric power steering device including a grease including a base oil having a kinetic viscosity of 1000 to 5000 mm²/s (40°C), a worked penetration of the grease being not more than 300, and which is charged in a gap between the spline shaft and the cylindrical body, wherein the electric power steering device is devoid of an O-ring between the spline shaft and the cylindrical body. Indeed, Oka does not even discuss a connection of a spline

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shaft and a cylindrical body, let alone teach or suggest the specific limitations recited in the claimed invention.

Oka is directed to a joint 8 of first transmission member 81 and a second transmission member 82. Oka teaches that the first transmission member 81 engages an output shaft 60 of a motor 6. Furthermore, Oka teaches that an elastic member 83 is formed between the first transmission member and the second transmission member 82 (e.g., see Figures 1 and 2).

The Examiner analogizes the second transmission member 82 to the cylindrical body of the claimed invention. Additionally, the Examiner relies upon a non-labeled male member, depicted in Figure 1, as teaching the spline shaft of the claimed invention. However, the disclosure of Oka does not mention a spline shaft nor a connection of a spline shaft with the second transmission member. Furthermore, nowhere does Oka teach or suggest that the non-labeled male member in Figure 1 of Oka includes a spline shaft.

Moreover, nowhere does Oka teach or suggest that a grease is charged in a gap between the spline shaft and the cylindrical body. As indicated above, Oka does not discuss a spline shaft. Therefore, Oka does not teach or suggest that a gap is formed between a spline shaft and a cylindrical and certainly does not teach or suggest that a grease is charged in a gap between the spline shaft and the cylindrical body. Indeed, Oka does not even teach or suggest using a grease.

Furthermore, since Oka does not provide a discussion of the alleged connection of the transmission member 82 and a spline shaft, Oka clearly does not disclose that the electric power steering device is devoid of an O-ring between the spline shaft and the transmission member 82. As indicated by the Examiner, Oka merely teaches a known steering system.

However, Applicants have explained that in conventional steering systems an O-ring

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is typically inserted into the engagement portion of the spline shaft and the cylindrical member to reduce gear noise (e.g., see Application at page 2, lines 5-18). The claimed invention, however, is devoid of an O-ring between the spline shaft and the cylindrical member.

This feature of the claimed invention is not taught or suggested by Oka. Indeed, Oka does not mention the connection of a spline and a cylindrical member (or detail this connection in one of the Figures). Therefore, there is no teaching in Oka to support the Examiner's allegations that the system is devoid of an O-ring between the spline shaft and the cylindrical member.

Moreover, Applicants submit that Alexander fails to make up the deficiencies of Oka and Okinawa. That is, nowhere does Alexander teach or suggest an electric power steering device including a grease including a base oil having a kinetic viscosity of 1000 to 5000 mm²/s (40°C), a worked penetration of the grease being not more than 300, and which is charged in a gap between the spline shaft and the cylindrical body, wherein the electric power steering device is devoid of an O-ring between the spline shaft and the cylindrical body. Indeed, the Examiner does not even allege that Alexander teaches or suggests this feature.

Therefore, Applicants submit that these references, even if combined, would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

B. Claim 11

The Examiner alleges that Hasegawa would have been combined with Okaniwa, Oka and Alexander to teach the claimed invention of claim 11. Applicants submit, however, that

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even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, neither Okaniwa nor Oka nor Alexander nor Hasegawa, nor any combination thereof, teaches or suggests an electric power steering device including *a grease including a base oil having a kinetic viscosity of 1000 to 5000 mm²/s (40 °C), a worked penetration of said grease being not more than 300, and which is charged in a gap between said spline shaft and said cylindrical body, wherein the electric power steering device is devoid of an O-ring between said spline shaft and said cylindrical body*" (emphasis added), as recited in claim 1, and similarly recited in claims 12 and 14.

As detailed in section A, above, neither Okaniwa nor Oka nor Alexander, nor any combination thereof, teaches or suggests this feature. Furthermore, Applicants submit that Hasegawa does not make up the deficiencies of Okaniwa, Oka and Alexander.

Indeed, nowhere does Hasegawa teach or suggest an electric power steering device including a grease including a base oil having a kinetic viscosity of 1000 to 5000 mm²/s (40°C), a worked penetration of the grease being not more than 300, and which is charged in a gap between the spline shaft and the cylindrical body, wherein the electric power steering device is devoid of an O-ring between the spline shaft and the cylindrical body.

Thus, Hasegawa fails to make up the deficiencies of Okaniwa, Oka and Alexander.

Therefore, Applicants submit that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

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IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicants submit that claims 1-5, 10-12 and 14, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: January 17, 2007

Respectfully Submitted,



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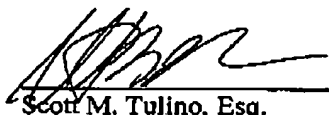
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I hereby certify that I am filing this paper via facsimile, to Group Art Unit 3611, at
(571) 273-8300, on January 19, 2007.

Respectfully Submitted,

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